

5 A (BIOS) memory 124 is coupled to local bus 120. A FLASH memory or other nonvolatile memory is used as BIOS memory 124. A BIOS program (not shown) is usually stored in the BIOS memory 124. The BIOS program includes CD-ROM BIOS 157 software for interaction with the computer system boot devices such as the CD-ROM 182. The BIOS memory 124 stores the system code which controls some computer system 100 operations.

10 A graphics controller 135 is coupled to local bus 120 and to a panel display screen 140. Graphics controller 135 is also coupled to a video memory 145 which stores information to be displayed on panel display 140. Panel display 140 is typically an active matrix or passive matrix liquid crystal display ("LCD") although other display technologies may be used as well. Graphics controller 135 can also be coupled to an optional external display or standalone monitor display. One graphics controller that can be employed as graphics controller 135 is the Western Digital WD90C14A graphics controller.

15 A bus interface controller or expansion bus controller 158 couples local bus 120 to an expansion bus 160. In this particular embodiment, expansion bus 160 is an Industry Standard Architecture ("ISA") bus although other buses, for example, a Peripheral Component Interconnect ("PCI") bus, could also be used. A personal computer memory card international association ("PCMCIA") controller 165 is also coupled to expansion bus 160 as shown. PCMCIA controller 165 is coupled to a plurality of expansion slots 170 to receive PCMCIA expansion cards such as modems, fax cards, communications cards, and other input/output devices. Interrupt request generator 197 is also coupled to ISA bus 160 and issues an interrupt service request over a predetermined interrupt request line after receiving a request to issue interrupt instruction from processor 105.

20 An I/O controller 175, often referred to as a super I/O controller is coupled to ISA bus 160. I/O controller 175 interfaces to an integrated drive electronics ("IDE") hard drive 180, a CD-ROM drive 182 and a floppy drive 185. An optional network interface controller 101 enables the computer system 100 to communicate with a computer network such as an Ethernet 190. The computer network may include a network such as a local area network ("LAN"), wide area network ("WAN"), Internet, Intranet, wireless broadband or the like. The network interface controller 101 forms a network interface for communicating with other computer systems (not shown) connected to the Ethernet 190 for implementing a method of

enabling removal of a removable medium of a boot device included in the computer system 100 that is connected to the network of other computer systems. The computer system's networking components generally include hardware as well as software components. Examples of the hardware components include the network interface controller 101 and the Ethernet 190. Examples of the software components, which include messaging services and network administration services, are described below.

The computer system 100 serves as a controller for resolving proprietary and standard event and message structures into a common format for use by the computer network for many management purposes. The computer system 100 is connected with a plurality of computer systems in the network for receiving messages from the computer systems, analyzing the messages and determine an effective utilization of the messages as directed by a user or network administrator. The computer system 100 receives messages in different message formats, organizes the messages, and converts the messages into a common format that assists a user, system administrator, or network administrator in utilizing the information contained in the messages. The converted messages in a common format are distributed at the discretion of a user, network administrator, or system administrator based on user needs or message importance to other system administration applications via a selected communication method. The network administrator controls the type of messages that are communicated over the network. The computer system 100 supports the conversion of messages into the common format to facilitate particular network applications.

Computer system 100 includes a power supply 164, for example, a battery, which provides power to the many devices which form computer system 100. Power supply 164 is typically a rechargeable battery, such as a nickel metal hydride ("NiMH") or lithium ion battery, when computer system 100 is embodied as a portable or notebook computer. Power supply 164 is coupled to a power management microcontroller 108 which controls the distribution of power from power supply 164. More specifically, microcontroller 108 includes a power output 109 coupled to the main power plane 114 which supplies power to processor 105. Power microcontroller 108 is also coupled to a power plane (not shown) which supplies power to panel display 140. In this particular embodiment, power control microcontroller 108 is a Motorola 6805 microcontroller. Microcontroller 108 monitors the charge level of power supply 164 to determine when to charge and when not to charge battery

164. Microcontroller 108 is coupled to a main power switch 111 which the user actuates to turn the computer system 100 on and off. While microcontroller 108 powers down other portions of computer system 100 such as hard drive 180 when not in use to conserve power, microcontroller 108 itself is always coupled to a source of energy, namely power supply 164.

5 In a portable embodiment, computer system 100 also includes a screen lid switch 106 or indicator 106 which provides an indication of when panel display 140 is in the open position and an indication of when panel display 140 is in the closed position. It is noted that panel display 140 is generally located in the same location in the lid of the computer as is typical for "clamshell" types of portable computers such as laptop or notebook computers. In  
10 this manner, the display screen forms an integral part of the lid of the computer which swings from an open position for interaction with the user to a close position.

Computer system 100 also includes a power management chip set 138, which includes power management chip models PT86C511 and PT86C511 manufactured by Pico Power. Power management chip set 138 is coupled to processor 105 via local bus 120 so that  
15 power management chip set 138 can receive power control commands from processor 105. Power management chip set 138 is connected to a plurality of individual power planes which supply power to respective devices in computer system 100 such as hard drive 180 and floppy drive 185, for example. In this manner, power management chip set 138 acts under the direction of processor 105 to control the power to the various power planes and devices of the  
20 computer. A real time clock ("RTC") 140 is coupled to I/O controller 175 and power management chip set 138 such that time events or alarms can be transmitted to power management chip set 138. Real time clock 140 can be programmed to generate an alarm signal at a predetermined time.

When computer system 100 is turned on or powered up, the computer system 100  
25 enters a start up phase, also referred to as a boot up phase, during which the computer system hardware is detected and the operating system is loaded. In case of a computer system 100 with the Windows NT operating system, the boot up process is typically divided into three stages. The initial two boot stages pertain to start up of the system components of the computer system 100 and the third stage typically pertains to the boot up of networking  
30 components of the computer system 100.